



# TENNESSEE DEPARTMENT OF EDUCATION

DIVISION OF CAREER AND TECHNICAL EDUCATION

## ARCHITECTURE & CONSTRUCTION CLUSTER: CONSTRUCTION PATHWAYS AT-A-GLANCE

The construction programs of study have been reconfigured into three new pathways outlined below. Based on feedback from educators and research into industry and employment trends, existing content in the Carpentry, Concrete, Electrical Systems, HVAC, Masonry, and Plumbing programs has been folded into these new pathways. They are designed with flexibility to help communities across Tennessee prepare students for the wide range of high-skill and high-demand jobs available in construction. All three pathways contain core knowledge and skills vital for success in today's construction careers, including safety, tools and equipment, career exploration, interpreting construction drawings, basic industry regulations, project management, and business management.

### RESIDENTIAL & COMMERCIAL CONSTRUCTION

#### COURSE SEQUENCE:

1	Fundamentals of Construction
2	Residential & Commercial Construction I
3	Residential & Commercial Construction II
4	Construction Practicum

**DESCRIPTION:** Residential & Commercial Construction, an integrated construction pathway, prepares students for a broad range of careers in the construction industry by developing an understanding of the different phases of building construction from start to finish.

**OUTCOMES:** Upon completion of this POS, proficient students will be able to explain the systems which make up a building and safely perform basic construction procedures related to the systems. Students will be prepared as versatile problem solvers for next steps in apprenticeships, postsecondary training, and careers in construction.

**IDEAL APPLICATION:** This POS works well in schools or districts with the capacity to offer only one construction pathway, as it focuses on basic skills useful in many construction career pathways.

**TEACHER ENDORSEMENTS:** To teach Residential & Commercial Construction I & II, teachers must hold the 580 Construction Maintenance Trades endorsement or a minimum of three of the following endorsements: 522, 523, 524, 527, 598.

### STRUCTURAL SYSTEMS

#### COURSE SEQUENCE:

1	Fundamentals of Construction
2	Structural Systems I
3	Structural Systems II
4	Construction Practicum

**DESCRIPTION:** Structural Systems prepares students for carpentry and related careers by developing knowledge and skill in framing buildings and the coverings and finishes of structural systems.

**OUTCOMES:** Upon completion of this POS, proficient students will be able to frame floors, walls, ceilings, roofs, and stairs, and install interior and exterior finishing. Students will be prepared for next steps in apprenticeships, postsecondary training, and carpentry-related careers.

**IDEAL APPLICATION:** For schools or districts where two construction programs are feasible, this POS works well when offered alongside MEP Systems, allowing students to select an area in which to develop specialized skill.

**TEACHER ENDORSEMENTS:** 522 or 580 is required for Structural Systems I & II.

### MECHANICAL, ELECTRICAL, & PLUMBING SYSTEMS

#### COURSE SEQUENCE:

1	Fundamentals of Construction
2	Mechanical, Electrical, & Plumbing (MEP) Systems
3	Electrical Systems -and/or- HVAC -and/or- Plumbing Systems
4	Construction Practicum

**DESCRIPTION:** Mechanical, Electrical, & Plumbing Systems prepares students for careers involving the installation, servicing, and maintenance of building equipment.

**OUTCOMES:** Upon completion of this POS, proficient students will be able to safely perform basic operations with building systems, with the option to specialize in electrical systems, HVAC, or plumbing systems in Level 3. Students will be prepared for apprenticeships, postsecondary training, and careers in electrical systems, plumbing, HVAC, and general maintenance.

**IDEAL APPLICATION:** For schools or districts where two construction programs are feasible, this POS works well when offered alongside Structural Systems, allowing students to select an area in which to develop specialized skill.

**TEACHER ENDORSEMENTS:** Teachers must hold at least one of the following endorsements to teach each course: MEP Systems- 501, 502, 523, 527, 532, 567, 580, 592, 598; Electrical Systems- 501, 502, 523, 567, 580, 592; HVAC- 501, 502, 523, 532, 567, 592, 598; Plumbing Systems- 501, 502, 527, 567, 580, 592